

1762

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of: Smith *et al.*

Serial No.: 09/757,073

Filed: 01/08/2001

For: Polyol-Based Method For Forming Thin Film Aerogels On Semiconductor Substrates



Docket: TI-22782B

Examiner: E. Cameron

Art Unit: 1762

INFORMATION DISCLOSURE STATEMENT

RECEIVED

MAR 06 2001

February 21, 2001

Assistant Commissioner For Patents
Washington, D. C. 20231

MAILING CERTIFICATE UNDER 37 C.F.R. § 1.8
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, DC 20231 on February 23, 2001.
Tina Rendon
Tina Rendon

Examiner:

Applicants wish to bring to the attention of the Patent and Trademark Office the information noted on the enclosed PTO-1449. Many of these references were cited in related applications. References DI and DJ are in a foreign language. Their known relevance is that they were cited in a related application. English translations of the abstracts of references DI and DJ are included with the submission.

Copies of reference(s) AA - AW, BA - BV, CA - CX, DA - DE, DG - DU, and EE - EN are enclosed. Applicants believe that no fee is due. However, please charge any required fee to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

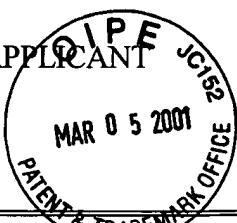
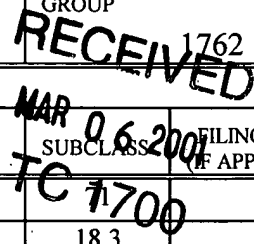
Respectfully submitted,

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FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. TI-22782B	SERIAL NO. 09/757,073
LIST OF DOCUMENTS CITED BY APPLICANT <i>(Use several sheets if necessary)</i>					APPLICANT Smith <i>et al.</i>	
FILING DATE 01/08/2001					RECEIVED MAR 06 2001 FILING DATE 01/08/2001	
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
AA	3,652,216	3/28/72	Krekeler, et al.	23	182	
AB	3,689,637	9/5/72	Pader	424	52	
AC	3,860,431	1/14/75	Payne <i>et al.</i>	252	309	
AD	3,997,501	12/14/76	McLeod	260	37SB	
AE	4,104,363	8/1/78	Vozka, et al.	423	338	
AF	4,169,926	10/2/79	McDaniel	526	100	
AG	4,230,773	10/28/80	Bakos	428	447	
AH	4,230,803	10/28/80	Weidenbach <i>et al.</i>	435	176	
AI	4,311,738	1/19/82	Chi	427	387	
AJ	4,548,646	10/22/85	Mosser, et al.	106	14.12	
AK	4,584,365	04/22/86	Jada <i>et al.</i>	528	271	
AL	4,608,316	08/26/86	Toda <i>et al.</i>	428	446	
AM	4,652,467	03/24/87	Brinker <i>et al.</i>	427	246	
AN	4,713,233	12/15/87	Marsh <i>et al.</i>	423	608	
AO	4,851,150	07/25/89	Hench <i>et al.</i>	252	315.6	
AP	4,943,542	7/24/90	Hayashi <i>et al.</i>	501	12	
AQ	4,954,327	09/04/90	Blount	423	338	
AR	4,987,101	01/22/91	Kaanta <i>et al.</i>	437	228	
AS	5,076,980	12/31/91	Nogues <i>et al.</i>	264	65	
AT	5,091,009	2/25/92	Nogami <i>et al.</i>	106	287.23	
AU	5,097,317	03/17/92	Fujimoto <i>et al.</i>	357	72	
AV	5,103,288	04/07/92	Sakamoto <i>et al.</i>	357	71	
AW	5,139,980	8/18/92	Nakahara <i>et al.</i>	501	12	
AX						
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
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OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>						
EXAMINER	AZ	DATE CONSIDERED				
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LIST OF DOCUMENTS CITED BY APPLICANT <i>(Use several sheets if necessary)</i>							APPLICANT Smith <i>et al.</i> FILING DATE 01/08/2001	
U.S. PATENT DOCUMENTS							GROUP 1762	
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)		
BA	5,155,576	10/13/92	Mizushima	357				
BB	5,207,814	05/04/93	Cogliati <i>et al.</i>	65	18.3			
BC	5,226,930	7/13/93	Sasaki	51	308			
BD	5,242,647	09/07/93	Poco	264	225			
BE	5,270,027	12/14/83	Balducci, <i>et al.</i>	423	338			
BF	5,275,796	01/04/94	Tillotson <i>et al.</i>	423	338			
BG	5,294,480	03/15/94	Mielke <i>et al.</i>	428	240			
BH	5,302,548	04/12/94	Watanabe <i>et al.</i>	437	187			
BI	5,320,983	06/14/94	Ouellet	437	231			
BJ	5,352,637	10/4/94	Fabry, <i>et al.</i>	437	238			
BK	5,368,887	11/29/94	Hoshino <i>et al.</i>	427	226			
BL	5,391,364	02/21/95	Cogliati	423	335			
BM	5,393,712	02/28/95	Rostoker <i>et al.</i>	437	238			
BN	5,405,805	04/11/95	Homma	437	195			
BO	5,409,683	04/25/95	Tillotson <i>et al.</i>	423	338			
BP	5,457,073	10/10/95	Ouellet	437	231			
BQ	5,489,553	02/06/96	Chen	437	195		05/25/95	
BR	5,494,863	2/27/96	Mathur	501	12		12/13/94	
BS	5,496,527	03/05/96	Yokogawa <i>et al.</i>	423	338		04/28/94	
BT	5,522,976	6/4/96	Campet, <i>et al.</i>	204	298.13		6/94	
BU	5,698,483	12/16/97	Ong <i>et al.</i>	501	12		3/17/95	
BV	5,746,992	05/05/98	Yoldas <i>et al.</i>	423	338		10/5/95	
BW								
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FOREIGN PATENT DOCUMENTS								
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
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LIST OF DOCUMENTS CITED BY APPLICANT <i>(Use several sheets if necessary)</i>					APPLICANT Smith et al. FILING DATE 01/08/2001		RECEIVED MAR 06 2001 1762	
U.S. PATENT DOCUMENTS								
*EXAMINER • INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)		
	CA	5,470,802	11/28/95	Gnade et al.	437	238	05/20/94	
	CB	5,472,913	12/05/95	Havemann et al.	437	195	08/05/94	
	CC	5,488,015	01/30/96	Havemann et al.	437	195	05/20/94	
	CD	5,494,858	02/27/96	Gnade et al.	437	231	06/07/94	
	CE	5,504,042	04/02/96	Cho et al.	437	247	06/23/94	
	CF	5,519,250	05/21/96	Numata	257	632	06/07/95	
	CG	5,523,615	06/04/96	Cho et al.	257	632	06/07/95	
	CH	5,525,857	06/11/96	Gnade et al.	313	309	08/19/94	
	CI	5,536,965	07/16/96	Beratan et al.	257	444	06/07/95	
	CJ	5,548,159	08/20/96	Jeng	257	634	05/23/95	
	CK	5,561,318	10/01/96	Gnade et al.	257	638	06/07/95	
	CL	5,656,848	08/12/97	Beratan et al.	257	446	06/07/95	
	CM	5,661,344	08/26/97	Havemann et al.	257	758	06/07/95	
	CN	5,723,368	3/3/98	Cho et al.	437	763	6/7/95	
	CO	5,736,425	04/07/98	Smith et al.	438	778	11/14/96	
	CP	5,747,880	5/5/98	Havemann et al.	257	759	11/18/96	
	CQ	5,750,415	5/12/98	Gnade et al.	427	195	5/27/94	
	CR	5,753,305	05/19/98	Smith et al.	427	335	11/14/96	
	CS	5,789,819	08/04/98	Gnade et al.			06/07/95	
	CT	5,804,508	09/08/98	Gnade et al.			10/23/96	
	CU	5,807,607	09/15/98	Smith et al.			11/14/96	
	CV	5,847,443	12/08/98	Cho et al.			11/14/96	
	CW	5,858,871	01/12/99	Jeng			06/13/96	
	CX	5,955,140	09/21/99	Smith et al.			11/14/96	
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LIST OF DOCUMENTS CITED BY APPLICANT <small>(Use several sheets if necessary)</small>				APPLICANT Smith <i>et al.</i> FILING DATE 01/08/2001 <div style="text-align: center; font-size: 1.2em; font-weight: bold;">MAR 06 2001</div> <div style="text-align: center; font-size: 1.2em; font-weight: bold;">TC 1700</div>		
U.S. PATENT DOCUMENTS						
*EXAMINER * INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	DA	6,037,277	03/14/00	Maskara <i>et al.</i>		11/14/96
	DB	6,063,714	5/16/00	Smith <i>et al.</i>		11/14/96
	DC	6,130,152	10/10/00	Smith <i>et al.</i>		11/14/96
	DD	6,159,295	12/12/00	Maskara <i>et al.</i>		04/22/99
	DE	6,171,645	01/09/01	Smith <i>et al.</i>		07/15/98
	DF					
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						YES NO
	DG	0 382 310 A2	08/16/90	Europe		n/a
	DH	0 454 239 A2	10/30/91	Europe		n/a
	DI	JP-A-54 109765	08/28/79	Japan		of abstract
	DJ	JP-A-06 293971	10/21/94	Japan		of abstract
	DK	WO 92/03378	03/05/92	PCT		n/a
OTHER DOCUMENTS <small>(Including Author, Title, Date, Pertinent Pages, Etc.)</small>						
	DL	Tillotson <i>et al.</i> , "Transparent ultralow-density silica aerogels prepared by a two-step sol-gel process", JOURNAL OF NON-CRYSTALLINE SOLIDS, 145 (1992), pp. 44-50.				
	DM	D. Basmadjian <i>et al.</i> , "The Control of the Pore Volume and Pore Size Distribution in Alumina and Silica Gels by the Addition of Water Soluble Organic Polymers", December 1962, JOURNAL OF CATALYSIS, Volume 1, Number 6, pp. 547 - 563.				
	DN	Fricke <i>et al.</i> , "Aerogels", May 28, 1992, J. AM. CERAM. SOC., 75(8), pp. 2027-2036.				
	DO	Einarsrud <i>et al.</i> , CHEM. PROCESS. ADV. MATL., (1992) pp. 355 - 361. (abstract only)				
	DP	Haereid, Siv <i>et al.</i> , "Mechanical Strengthening of TMOS-Based Alcohols by Aging in Silane Solutions", 1994, JOURNAL OF SOL-GEL SCIENCE AND TECH., Vol. 3, pp. 199-204.				
	DQ	Haereid, Siv, "Preparation and Characterization of Transparent, Monolithic Silica Xerogels with Low Density", January 1993, Norwegian Institute of Technology, Dept. Of Inorganic Chemistry.				
	DR	Hrubesh <i>et al.</i> , "Dielectric Properties of Aerogels", J. MATERIALS RESEARCH, Vol. 8, No. 7, July 1993, pp. 1736-1741.				
	DS	V. S. Klimenko, L. A. Kulik, and V. V. Vashchinskaya, "Dependence of the Composition and Structure of Silicic Acid Xerogels on the Nature of the Solvent", 1986, UKRAINSKII KHIMICHESKII ZHURNAL, Vol. 52, No. 12, pp. 1247 - 1251.				
	DT	Smith <i>et al.</i> , "Preparation of low-density xerogels at ambient pressure", JOURNAL OF NON-CRYSTALLINE SOLIDS, 186 (1995) pp. 104 - 112.				
	DU	Yokogawa, H., Yokoyama, M., "Hydrophobic Silica Aerogels", JOURNAL OF NON-CRYSTALLINE SOLIDS, 186 (1995) pp. 23-29.				
	DV					
EXAMINER				DATE CONSIDERED		
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LIST OF DOCUMENTS CITED BY APPLICANT <i>(Use several sheets if necessary)</i> <div style="border: 1px solid black; border-radius: 50%; width: 100px; height: 100px; display: flex; align-items: center; justify-content: center; margin: 0 auto;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">PATENT & TRADEMARK OFFICE</div> <div style="text-align: center;"> MAR 05 2001 </div> </div>					APPLICANT Smith et al.		MAR 06 2001 1762 TC 1700	
					FILING DATE 01/08/2001			
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	EA							
	EB							
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	EC							
	ED							
OTHER DOCUMENTS <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
	EE ✓	Poco et al., "A rapid Supercritical Extraction Process for the Production of Silica Aerogels", MAT. RES. SOC. SYMP. PROC. Vol. 431 (1996) pp. 297-302, Materials Research Society.						
	EF ✓	Prakash et al., "Ambient-Pressure silica Aerogel Films", MAT. RES. SOC. SYMP. PROC. Vol. 371 (1995) pp. 205-210, Materials Research Society.						
	EG ✓	Smith et al., "Preparation of Low-Density Xerogels at Ambient Pressure for Low K Dielectrics", MAT. RES. SOC. SYMP. PROC. Vol. 371 (1995) pp. 261-272, Materials Research Society.						
	EH ✓	U.S. Patent Application Serial No. 08/746,688 filed 11/14/96						
	EI ✓	U.S. Patent Application Serial No. 08/748,927 filed 11/14/96						
	EJ ✓	U.S. Patent Application Serial No. 09/178,715 filed 10/26/98						
	EK ✓	U.S. Patent Application Serial No. 09/324,370 filed 06/02/99						
	EL	U.S. Patent Application Serial No. 09/488,185 filed 01/20/00						
	EM	U.S. Patent Application Serial No. 09/549,289 filed 04/14/00						
	EN	U.S. Patent Application Serial No. 09/573,564 filed 05/19/00						
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